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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/054,623	01/18/2002	Kelvin Chong	2102299-991110	5779

29906 7590 10/17/2006

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EXAMINER

NAHAR, QAMRUN

ART UNIT	PAPER NUMBER
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2191

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/054,623

Applicant(s)

CHONG ET AL.

Examiner

Qamrun Nahar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-14, 16-22, 25 and 26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-14, 16-22, 25 and 26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment filed on 08/03/2006.
2. The rejection under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter to claims 1-18 is withdrawn in view of applicant's amendment and remarks/arguments.
3. Claims 1-4, 6-14 and 16-19 have been amended.
4. Claim 24 has been canceled.
5. Claims 1-4, 6-14, 16-22 and 25-26 are pending.
6. As previously indicated in the previous Office Action (Mailed on 11/18/2004, par. 2), the oath/declaration stand finally objected to.
7. Claims 1-4, 6-12, 19-22 and 25-26 stand finally rejected under 35 U.S.C. 103(a) as being unpatentable over Flores (U.S. 5,630,069) in view of Christfort (US 2002/0138617 A1).
8. Claims 13-14 and 16-18 stand finally rejected under 35 U.S.C. 103(a) as being unpatentable over Flores (U.S. 5,630,069) in view of Christfort (US 2002/0138617 A1), and further in view of Ambler (U.S. 6,393,456).

Response to Amendment

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-4, 6-12, 19-22 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flores (U.S. 5,630,069) in view of Christfort (US 2002/0138617 A1).

Per Claim 1:

Flores teaches a first module adapted to allow a developer to visually design workflow describing an application, the workflow comprising a plurality of layers (col. 5, lines 35-40 and col. 7, lines 10-30); wherein said workflow comprises a plurality of states and a plurality of transitions (e.g. see col. 3, lines 56-67); and a second module adapted to allow a developer to design views for said application (col. 5, lines 41-45).

However, Flores does not explicitly teach a multi-channel application capable of operating over a plurality of channels, comprising a plurality of layers, wherein each of said layers corresponds to at least one channel of said multi-channel application, wherein each layer includes states or transitions common to at least one channel of said multi-channel application or a third module adapted to allow a developer to integrate data sources within said multi-channel application.

Christfort teaches a multi-channel application capable of operating over a plurality of channels, comprising a plurality of layers, wherein each of said layers corresponds to at least one channel of said multi-channel application (e.g. see par. 66 and 95; The multi-channel application communicates with various devices using plurality of channels of communication.), wherein each layer includes states or transitions common to at least one channel of said multi-channel application (e.g. see par. 66 and 95); and a third module adapted to allow a developer to integrate data sources within said multi-channel application (e.g. see par. 101-103).

It would have been obvious to one having ordinary skill in the computer art at the time of the invention was made to modify the system disclosed by Flores to include a multi-channel application capable of operating over a plurality of channels, comprising a plurality of layers, wherein each of said layers corresponds to at least one channel of said multi-channel application, wherein each layer includes states or transitions common to at least one channel of said multi-channel application; and a third module adapted to allow a developer to integrate data sources within said multi-channel application using the teaching of Christfort. The modification would be obvious because one of ordinary skill in the art would be motivated to provide improved techniques for designing applications that more effectively work with all devices (Christfort, par. 21, lines 1-3).

Per Claim 2:

The rejection of claim 1 is incorporated, and the combination of Flores and Christfort further teaches comprising an interactive development environment for allowing a developer to interact with said first, second and third modules to design said multi-channel application (e.g. see Flores, col. 14, lines 33-41; the MVC paradigm allows the interaction; and e.g. see Christfort, par. 63-65).

Per Claim 3:

The rejection of claim 2 is incorporated, and the combination of Flores and Christfort further teaches wherein said interactive development environment comprises a graphical user

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interface for allowing a developer to visually interact with said first, second and third module (e.g. see Flores, col. 14, lines 33-41; and e.g. see Christfort, par. 63-65).

Per Claim 4:

The rejection of claim 1 is incorporated, and Christfort further teaches wherein said system is adapted to allow a developer to design multi-modal applications (e.g. see par. 66 and 95).

Per Claim 6:

The rejection of claim 5 is incorporated, and Christfort further teaches wherein said system is adapted to allow a developer to design multi-channel applications including at least two channels selected from the group comprising voice channels, web channels, and wireless web channels (e.g. see par. 66).

Per Claim 7:

This is another version of the claimed system discussed above (claims 1 and 2), wherein all claim limitations also have been addressed and/or covered in cited areas as set forth above, including “a graphical user interface (GUI) comprising a user interface selection device and a display for displaying an interactive development environment” (e.g. see Flores, col. 5, lines 35-40, and col. 14, lines 33-41; and e.g. see Christfort, par. 63-65). Thus, accordingly, this claim is also obvious.

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Per Claim 8:

The rejection of claim 7 is incorporated, and the combination of Flores and Christfort further teaches wherein said GUI is used for independently displaying and designing said plurality of layers (e.g. see Flores, col. 14, lines 33-41; and e.g. see Christfort, par. 63-65).

Per Claim 9:

The rejection of claim 8 is incorporated, and Christfort further teaches wherein said GUI is adapted to independently display a root layer including states common to each of said channels of said multi-channel application, and to allow a developer to visually design said root layer (e.g. see par. 66 and 95).

Per Claim 10:

The rejection of claim 9 is incorporated, and Christfort further teaches wherein said GUI is further adapted to independently display a voice layer including states common to a voice channel of said multi-channel application, and to allow a developer to visually design said voice layer (e.g. see par. 66 and 95).

Per Claim 11:

The rejection of claim 10 is incorporated, and Christfort further teaches wherein said GUI is further adapted to independently display a visual layer including states common to a visual channel of said multi-channel application, and to allow a developer to visually design said visual layer (e.g. see par. 66 and 95).

Per Claim 12:

The rejection of claim 11 is incorporated, and Christfort further teaches wherein said GUI is further adapted to display combinations of said root, voice and visual layers (e.g. see par. 66 and 95).

Per Claim 19:

This is a method version of the claimed system discussed above, claim 1, wherein all claim limitations also have been addressed and/or covered in cited areas as set forth above, including “linking said states; and converting said application workflow into an application descriptor for delivering the application over at least one of the plurality of channels” (Flores, e.g. see col. 3, lines 56-67; col. 5, lines 9-12 and lines 35-40; col. 7, lines 10-30; and col. 14, lines 33-41; and Christfort, see par. 66 and 95). Thus, accordingly, this claim is also obvious.

Per Claim 20:

The rejection of claim 19 is incorporated, and the combination of Flores and Christfort further teaches comprising the step of: designing a presentation of said application within said visual development environment (e.g. see Flores, col. 14, lines 33-41; and e.g. see Christfort, par. 63-65).

Per Claim 21:

The rejection of claim 20 is incorporated, and Christfort further teaches comprising the step of: internationalizing said presentation of said application within said visual development environment (e.g. see par. 95).

Per Claim 22:

The rejection of claim 21 is incorporated, and Christfort further teaches comprising the step of: integrating data sources into said application by use of said visual development environment (e.g. see par. 101-103).

Per Claim 25:

The rejection of claim 19 is incorporated, and Flores further teaches comprising the step of: componentizing a plurality of said states and transitions into a reusable sub-model within said visual development environment (e.g. see “definitions database contains **records** that define each type of business process and workflow in the system. These **records** are used by the workflow updater and workflow processor to determine *new workflow states and available actions*.” (emphasis added) in col. 4, lines 53-57; the records are reusable sub-model).

Per Claim 26:

The rejection of claim 21 is incorporated, and Flores further teaches comprising the step of: packaging said application workflow into a reusable component within said visual development environment (e.g. see “definitions database contains **records** that define each type of business process and workflow in the system. These **records** are used by the workflow

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updater and workflow processor to determine new workflow states and available actions.”

(emphasis added) in col. 4, lines 53-57; the records are reusable component).

11. Claims 13-14 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flores (U.S. 5,630,069) in view of Christfort (US 2002/0138617 A1), and further in view of Ambler (U.S. 6,393,456).

Per Claim 13:

Flores teaches a graphical user interface adapted to allow a user to visually build a single workflow for an application (e.g. see col. 5, lines 9-12 and lines 35-40; and col. 7, lines 10-30); wherein said single workflow comprises a plurality of states and a plurality of transitions (e.g. see col. 3, lines 56-67). However, Flores does not explicitly teach a multi-channel application capable of operating over a plurality of channels, comprising a plurality of layers, wherein each of said layers corresponds to at least one channel of said multi-channel application, wherein each layer includes states or transitions common to at least one channel of said multi-channel application or a module for converting said visually built workflow into a markup language.

Christfort teaches a multi-channel application capable of operating over a plurality of channels, comprising a plurality of layers, wherein each of said layers corresponds to at least one channel of said multi-channel application (e.g. see par. 66 and 95; The multi-channel application communicates with various devices using plurality of channels of communication.), wherein each layer includes states or transitions common to at least one channel of said multi-channel application (e.g. see par. 66 and 95).

Ambler teaches a module for converting said visually built workflow into a markup language (“The workflow specifications are proposed to be written in extensible Mark-up Language (XML), which provides a robust tool for specifying workflows.” in column 8, lines 43-46; The visually built workflow is represented by workflow specifications, which is converted into XML.).

It would have been obvious to one having ordinary skill in the computer art at the time of the invention was made to modify the system disclosed by Flores to include a multi-channel application capable of operating over a plurality of channels, comprising a plurality of layers, wherein each of said layers corresponds to at least one channel of said multi-channel application, wherein each layer includes states or transitions common to at least one channel of said multi-channel application or a module for converting said visually built workflow into a markup language using the teaching of Christfort and Ambler. The modification would be obvious because one of ordinary skill in the art would be motivated to provide improved techniques for designing applications that more effectively work with all devices (Christfort, par. 21, lines 1-3) and use a standard language such as XML that allows greater flexibility.

Per Claim 14:

The rejection of claim 13 is incorporated, and Ambler further teaches wherein said markup language comprises an XML-based language (e.g. see col. 8, lines 43-46).

Per Claim 16:

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The rejection of claim 13 is incorporated, and the combination of Flores and Christfort further teaches wherein said graphical user interface is adapted to allow a user to visually build a single workflow for a multi-channel application capable of operating in a plurality of modes (Flores, e.g. see col. 3, lines 56-67; and Christfort, e.g. see par. 66 and 95).

Per Claim 17:

The rejection of claim 13 is incorporated, and the combination of Flores and Christfort further teaches a second graphical user interface adapted to allow a developer to build views of multi-channel application (Flores, e.g. see col. 5, lines 41-45; and Christfort, e.g. see par. 66 and 95); and Ambler further teaches a second module adapted to convert said built views into a markup language (e.g. see col. 12, lines 49-59).

Per Claim 18:

The rejection of claim 17 is incorporated, and Ambler further teaches wherein said markup language comprises an XML-based language (e.g. see col. 8, lines 43-46).

Response to Arguments

12. Applicant's arguments filed on 08/03/2006 have been fully considered but they are not persuasive.

In the remarks, the applicant argues that:

a) The combination of Flores and Christfort fails to teach workflow describing a multi-channel application capable of operating over a plurality of channels as required by claim 1.

Examiner's response:

a) Examiner strongly disagrees with applicant's assertion that the combination of Flores and Christfort fails to disclose the claimed limitations recited in claim 1. The combination of Flores and Christfort clearly shows each and every limitation in claim 1.

As previously indicated in the last Office Action (Mailed on 05/03/2006, par. 11), Flores teaches workflow (col. 5, lines 35-40 and col. 7, lines 10-30). That is, Flores is relied upon for the limitation "workflow", while Christfort is relied upon for the limitation "a multi-channel application capable of operating over a plurality of channels". Christfort teaches a multi-channel application capable of operating over a plurality of channels (e.g. see par. 66 and 95; The multi-channel application communicates with various devices using plurality of channels of communication.).

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In addition, see the rejection above in paragraph 10 for rejection to claim 1.

In the remarks, the applicant argues that:

b) The combination of Flores and Christfort fails to teach that the workflow comprises a plurality of layers, wherein each of said layers corresponds to at least one channel of said multi-channel application, wherein said workflow comprises a plurality of states and a plurality of

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transitions, wherein each layer includes states and transitions common to at least one channel of said multi-channel application as required by claim 1.

Examiner's response:

b) Examiner strongly disagrees with applicant's assertion that the combination of Flores and Christfort fails to disclose the claimed limitations recited in claim 1. The combination of Flores and Christfort clearly shows each and every limitation in claim 1.

Flores teaches that the workflow comprising a plurality of layers (col. 5, lines 35-40 and col. 7, lines 10-30); wherein said workflow comprises a plurality of states and a plurality of transitions (e.g. see col. 3, lines 56-67). However, Flores does not explicitly teach wherein each of said layers corresponds to at least one channel of said multi-channel application or wherein each layer includes states or transitions common to at least one channel of said multi-channel application. That is, Christfort is relied upon for the limitation "wherein each of said layers corresponds to at least one channel of said multi-channel application, wherein each layer includes states or transitions common to at least one channel of said multi-channel application". Christfort teaches a plurality of layers, wherein each of said layers corresponds to at least one channel of said multi-channel application (e.g. see par. 66 and 95; The multi-channel application communicates with various devices using plurality of channels of communication.), wherein each layer includes states or transitions common to at least one channel of said multi-channel application (e.g. see par. 66 and 95).

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on

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combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In addition, see the rejection above in paragraph 10 for rejection to claim 1.

In the remarks, the applicant argues that:

c) The cited references fail to teach claim 7 for at least the reasons stated with respect to claim 1.

Examiner's response:

c) The Examiner has already addressed applicant's arguments regarding claim 1 in the Examiner's Responses (a) and (b) above. Therefore, see the Examiner's Responses (a) and (b) above. In addition, see the rejection above in paragraph 10 for rejection to claim 7.

In the remarks, the applicant argues that:

d) For example, the Office Action also rejects dependent claims 9- 12 based on paragraphs [0066] and [0095] of the Christfort reference which are reproduced above. Dependent claim 9 requires that the "GUI is adapted to independently ... Applicants submit that the cited sections of the Flores and Christfort references fail to teach at least the above-underlined recitations of claims 9- 12. Accordingly, Applicants submit that dependent claims 9- 12 are also separately patentable.

Examiner's response:

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d) Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. That is, applicant has failed to point out how the citations provided failed to teach the limitations.

In the remarks, the applicant argues that:

e) The cited references fail to teach claim 19 for at least the reasons stated with respect to claim 1.

Examiner's response:

e) The Examiner has already addressed applicant's arguments regarding claim 1 in the Examiner's Responses (a) and (b) above. Therefore, see the Examiner's Responses (a) and (b) above. In addition, see the rejection above in paragraph 10 for rejection to claim 19.

In the remarks, the applicant argues that:

f) Applicants further submit that the cited references fail to teach, for example, "converting said application workflow into an application descriptor for delivering the application over at least one of the plurality of channels," as required by claim 19. Applicants submit there is absolutely no suggestion of this recitation in the cited references. Applicants respectfully request that the Examiner provide a citation in the references which teaches this recitation.

Examiner's response:

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f) Examiner strongly disagrees with applicant's assertion that the combination of Flores and Christfort fails to disclose the claimed limitations recited in claim 19. The combination of Flores and Christfort clearly shows each and every limitation in claim 19. The Examiner had provided a citation in the references which teaches this recitation, see previous Office Action (Mailed on 05/03/2006, par. 11). However, applicant has failed to point out how the citation provided failed to teach this limitation. In addition, see the rejection above in paragraph 10 for rejection to claim 19.

In the remarks, the applicant argues that:

g) For example, dependent claim 25 requires "componentizing a plurality of said states and transitions into a reusable sub-model within said visual development environment." Dependent claim 26 requires "packaging said application workflow into a reusable component within said visual development environment." The Office Action rejects claims 25 and 26 based upon column 4:53-57 of the Flores reference, which states that the "definitions database contains records that define each type of business process and workflow in the system. These records are used by the workflow updater and workflow processor to determine new workflow states and available actions." Applicants submit that the Flores reference fails to teach at least the above-underlined recitations of claims 25 and 26. Accordingly, for at least the foregoing reasons, Applicants submit that claims 25 and 26 are separately patentable over the cited references.

Examiner's response:

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g) Examiner strongly disagrees with applicant's assertion that the combination of Flores and Christfort fails to disclose the claimed limitations recited in claims 25 and 26. The combination of Flores and Christfort clearly shows each and every limitation in claims 25 and 26.

Flores teaches comprising the step of: componentizing a plurality of said states and transitions into a reusable sub-model within said visual development environment (e.g. see "definitions database contains **records** that define each type of business process and workflow in the system. These **records** are used by the workflow updater and workflow processor to determine *new workflow states and available actions*." (emphasis added) in col. 4, lines 53-57; the records are reusable sub-model) as recited in claim 25; and Flores further teaches comprising the step of: packaging said application workflow into a reusable component within said visual development environment (e.g. see "definitions database contains **records** that define each type of business process and workflow in the system. These **records** are used by the workflow updater and workflow processor to determine new workflow states and available actions." (emphasis added) in col. 4, lines 53-57; the records are reusable component) as recited in claim 26.

In addition, see the rejection above in paragraph 10 for rejection to claims 25 and 26.

In the remarks, the applicant argues that:

h) The cited references fail to teach claim 13 for at least the reasons stated with respect to claim 1. Further, applicants submit that the Ambler reference fails to cure the deficiencies of the Flores and Christfort references.

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Examiner's response:

h) The Examiner has already addressed applicant's arguments regarding claim 1 in the Examiner's Responses (a) and (b) above. Therefore, see the Examiner's Responses (a) and (b) above.

Further, in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In addition, see the rejection above in paragraph 11 for rejection to claim 13.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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14. Any inquiry concerning this communication from the examiner should be directed to Qamrun Nahar whose telephone number is (571) 272-3730. The examiner can normally be reached on Mondays through Fridays from 9:30 AM to 6:00 PM.

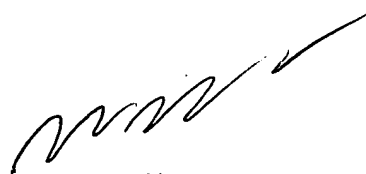
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Y Zhen, can be reached on (571) 272-3708. The fax phone number for the organization where this application or processing is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



QN
October 10, 2006



WEI ZHEN
SUPERVISORY PATENT EXAMINER